



C4FM/FM 144/430 MHz  
Dual Band 5W  
Digital Transceiver  
**FT-70DR**  
« 700 mW Loud and Clear audio,  
Commercial Grade Specifications »

**WIRES-X**  
Portable Digital Node  
Available



C4FM/FM 144/430 MHz  
Dual Band 5 W  
Digital Transceiver  
**FT3DR**  
« Improved 66 ch  
GPS receiver included »

**WIRES-X**  
Portable Digital Node  
Available



C4FM/FM 144/430 MHz  
Dual Band 5 W  
Digital Transceiver  
**FT2DR**  
« Improved 66 ch  
GPS receiver included »

## System Fusion II

**C4FM Digital**  
*Pursuing Advanced Communications*



C4FM/FM 144/430 MHz  
Dual Band Dual Receive Digital Repeater  
**DR-2X**

**WIRES-X**  
Portable Digital Node  
Available



C4FM/FM  
144/430 MHz Dual Band 50 W  
Digital Transceiver  
**FTM-100DR**  
« Improved 66 ch GPS receiver included »



C4FM/FM  
144/430 MHz Dual Band 50 W  
Digital Transceiver  
**FTM-7250DR**  
« Heavy Duty 50 Watts High Power »

**WIRES-X**  
Portable Digital Node  
Available



C4FM/FM  
144/430 MHz Dual Band 50 W  
Digital Transceiver  
**FTM-400XDR**  
« Improved 66 ch GPS receiver included »



C4FM/FM 144 MHz 65 W  
Digital Transceiver  
**FTM-3200DR**  
« Genuine 65 Watts High Power »



CW/SSB/AM/FM/C4FM  
HF/50/144/430 MHz Wide-Coverage  
100 W All Mode Transceiver (144/430 MHz: 50 W)  
**FT-991A**  
« Real-Time Spectrum Scope included »



C4FM/FM 430 MHz 55 W  
Digital Transceiver  
**FTM-3207DR**  
« Heavy Duty 55 Watts High Power »

**System Fusion II Supports All C4FM Portables and Mobiles**

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The radio

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# 2019 ARRL CENTRAL DIVISION CONVENTION

September 27-28, 2019





2017  
**MRAC**  
Milwaukee Radio Amateurs' Club  
WIQI REPEATER  
EST. 1917



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## SCHEDULE OF EVENTS

Friday, September 27

5:30pm Banquet

7:00pm Raffle Icom IC-7300

Saturday, September 28

### SPEAKERS

10:00am Bob Heil, K9EID

11:00am ARRL CEO  
Dr. Howard Michel, WB2ITX  
ARRL Q+A

12:30pm SDRplay  
Operating the SDR Radio  
Steve Brightman, KI5ENW

1:30pm Bioenno Battery

2:30pm West Mountain Radio

3:30pm COMPACtenna  
Dr. Jack Nilsson, N8NDL

# ICOM

Thanks to Icom America for their donation of the IC-7300 radio for the club raffle!

# WELCOME

Welcome to the 2019 ARRL Central Division Convention.

Congratulations to the Milwaukee Radio Amateur's Club on their Anniversary of 100 years as an American Radio Relay League Affiliated Club. Founded in 1917, the MRAC has the distinction of being the only club from that first group of radio clubs which became affiliated with the American Radio Relay League in 1919.

In honor of this Centennial Anniversary, Dr. Howard Michel WB2ITX, the CEO of the ARRL, will present the Milwaukee Radio Amateur's Club with a special award at the Saturday 11 AM ARRL Forum which will celebrate the occasion of MRAC becoming the first ARRL Affiliated Club to achieve this milestone.

During this weekend's Central Division Convention stop by the ARRL Field Organization booths for the ARRL Wisconsin, Illinois and Indiana Sections to exchange thoughts and greetings with your ARRL Section Managers.

Meeting with the ARRL Section staff is an excellent opportunity to discover how you can become more involved with your ARRL team!

I owe a special mention of thanks to the leadership and members of the Milwaukee Radio Amateur's Club and the staff of HRO-Milwaukee for their efforts of organizing and hosting the 2019 ARRL Central Division Convention.

Thank You,

73, Kermit Carlson W9XA  
ARRL Central Division Director

# MRAC CLUB HISTORY

The Milwaukee Radio Amateurs' Club was formed in January 1917 by Loy SchellHillegas-Baird, A. C. Klettsch, J. B. Hitz and Alonzo Pawling.

In 1919, after World War I, the ARRL came up with the idea for local radio clubs to officially affiliate with ARRL to formalize a network for getting messages relayed from coast to coast. MRAC agreed and applied for ARRL club affiliation October 24, 1919. Affiliation was granted December 5, 1919 as one of a group of 10 clubs who would be the first batch of affiliated clubs. In a letter received by MRAC from ARRL dated 1/28/1970, MRAC was informed that of the original 10 affiliated clubs, MRAC was the only one still active, making MRAC the oldest and longest affiliated ARRL club.

For conventions, the first ever ARRL Central Division Convention was produced by MRAC in 1928 (when the Central Division included Kentucky, Michigan and Ohio). Then in 1940 the Wisconsin State Convention was organized by MRAC. In 1948, MRAC organized an ARRL National Convention which produced a profit of almost \$8,000 (just over \$85,000 in 2019 money). MRAC again hosted a Central Division convention (along with Menomonee Falls and West Allis clubs) in 1967.

Over the years MRAC members have had numerous ARRL field organization posts, including Emergency Coordinators, Section Emergency Coordinators, Radio Officers, Section Managers, Assistant Directors, and 3 different Division Directors. An MRAC member has even been an Assistant Secretary of ARRL.

For more information on the MRAC, check out our web site ([www.w9rh.org](http://www.w9rh.org)) for a copy of our annually updated history book, and also YouTube ([https://youtu.be/i947F-\\_Uomg](https://youtu.be/i947F-_Uomg)) for a 15 minute video covering our 100th anniversary in 2017.



**Congratulations MRAC on 100 Years...**  
**you don't look a day past 99!**



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**RG-213, MIL-C-17, NON-MIGRATING JACKET**

**RG-8/U, HIGHEST POWER, DIRCT BURIAL, UV STABLE**

**RG-58/U, PORTABLE, LIGHTWEIGHT**

### **UHF/VHF Applications**

**3810, LMR-400 TYPE, SOLID CENTER, UV STABLE PE JACKET, DOUBLE SHIELDED, LOW LOSS**

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